



January 23, 2006

TO: Transportation Authority of Marin Commissioners

FROM: Dianne Steinhauser, Executive Director

RE: Addendum 2 to TAM Contract with Nolte Associates, Inc., – Agenda Item 11

Executive Summary

At the October 27, 2005 Board Meeting, Addendum 1 to the TAM contract with Nolte Associates, Inc. was approved for a not to exceed amount of \$365,000. The amendment covered preliminary engineering and environmental clearance for the north-south bicycle/pedestrian facility through Puerto Suello Hill per the Measure A Expenditure Plan, and the soundwall on the west side of Highway 101. Since that time, the preliminary engineering is complete and the Nolte team is ready to commence final design. Nolte has refined the scope of work to complete the final design which is included in Addendum 2. .

In addition, per concurrence from the Board last month, the Nolte team will also take the lead in the design of both the east and west soundwalls, including the sound absorption elements of these walls.

Staff recommends approval of Addendum 2 to Nolte's contract in the amount of \$1,097,400 for a new not-to-exceed amount of \$2,842,400. Funding for this effort will come from Measure A, Strategy 2. It is critical that this work proceed as expeditiously as possible, to be incorporated into the Segment 4 construction documents prior to bid.

Recommendation: The TAM Board approve Addendum 2 to the Nolte Contract for additional on-call support services in the amount of \$1,097,400, for the work indicated on Exhibit A to the Addendum.

Strategy 2 of the Measure A Expenditure Plan provides funding for the completion of a north-south bicycle way through Puerto Suello Hill to improve bicycle safety, and to add sound-absorptive materials on soundwalls.

At the October 27, 2005 Board Meeting, Addendum 1 to the TAM contract with Nolte Associates, Inc. was approved for additional on-call support services in the amount of \$365,000 for preliminary engineering and environmental clearance necessary for the north-south bicycle/pedestrian path through Puerto Suello Hill. In addition, staff informed the Board that the final design and construction packaging would be further refined and an additional addendum to complete the design and construction packaging would be submitted to the Board once the

preliminary engineering neared completion. We are now at the point where the preliminary engineering is essentially complete and are ready to move forward with final design.

The basic alignment of the path was approved by the TAM Board at the December 15, 2005 meeting. Since that time, staff has been working with project stakeholders, including representatives from Caltrans, SMART, City of San Rafael and the Marin County Bicycle Coalition to refine the design. In addition, per the direction of the TAM Board at the December meeting, staff and the Nolte team has further investigated the following path elements:

- Providing access at Linden Avenue
- An undercrossing option at the Lincoln Avenue ramps
- The terminus of the path at Stevens Place and Mission Avenue

Nolte has refined the scope of work for final design of the path to reflect the above elements, which were not included in the original scope of work presented and approved at the October 27, 2005 meeting.

In addition, at the December meeting, staff was directed to take the lead in the design of the details for including sound absorption options for the east and west soundwalls. The extent of this work was not included in the scope of work envisioned at the October meeting

Originally, it was anticipated that the total cost to perform the design for the multi-use path would be in the range of \$750,000 - \$950,000. This cost estimate was developed in September prior to knowing all final design elements. Now that the design elements have been refined, the cost estimate to perform the work for the design of the multi-use path is:

Preliminary Engineering (Addendum 1)	\$ 365,000
Final Design & Bid Packaging (Addendum 2)	\$1,097,400
Total	\$1,462,400

The reason for the increase is due to several path and soundwall elements that were not initially considered, as follows:

- Additional work associated with investigating an undercrossing option at Lincoln
- "Breakaway" path at Linden, stairs and "mixing area" to provide better path access to the Dominican and Lincoln neighborhoods
- "Mixing Area" at the path terminus at Mission Avenue and Stevens Place
- Amount of meetings with project stakeholders and public meetings increased beyond what was originally anticipated
- Landscaping design
- Pedestrian Crossing design vicinity of Lincoln
- Path lighting
- Caltrans Permit Fees

In addition, based on direction received from the TAM Board at the December meeting, TAM staff is taking the lead in the evaluation and design of sound absorption options for both the east and west soundwalls. The extent of this work was not anticipated in the original scope of work.

Addendum 2 includes the final design and bid packaging for the multi-use path and the evaluation of options, final design, and bid packaging of sound absorption material on the east and west soundwalls.

The total new Nolte contract amount including all addendums is as follows:

Original Nolte Contract	\$1,380,000
Addendum No. 1 – Preliminary Engineering for Multi-use path	\$365,000
Addendum No. 2 – Final Design Multi-use Path and Soundwalls	\$1,097,400
Total Not to Exceed Amount	\$2,842,400

It is the intent of staff to design the necessary features on an accelerated schedule for adding the path and sound absorptive soundwall into the Caltrans bid set prior to advertisement, to the extent possible. Services beyond June 30th of 2006, such as design support during construction, are subject to a further addendum.

Funding for this addendum will be from Measure A, Strategy 2, 101 Gap Closure Project. Funds will be available from this strategy, as provided for in the adopted FY05/06 budget.

Recommendation

Approve Second Addendum to Agreement between TAM and Nolte Associates, Inc., for additional on-call support services in the amount of \$1,097,400.

Attachments:

Attachment A – Scope of Services

Second Addendum to Agreement between TAM and Nolte Associates, Inc., dated January 26, 2006.

SECOND ADDENDUM TO AGREEMENT

**BY AND BETWEEN THE
TRANSPORTATION AUTHORITY OF MARIN
AND NOLTE ASSOCIATES, Inc., DATED March 24, 2005**

THIS SECOND ADDENDUM is made and entered into this 26th day of January 2006, by and between the Transportation Authority of Marin, hereinafter referred to as "TAM," and Nolte Associates, Inc., hereinafter referred to as "Contractor."

RECITALS:

WHEREAS, TAM and the Contractor entered into an agreement for On Call Support Services dated March 24, 2005 ("Agreement"); and a First Addendum on October 27, 2005 and

WHEREAS, Exhibit A to the Agreement obligated Contractor to provide on-call support services; and

WHEREAS, the parties desire to amend the Agreement to add additional on-call support services in the amount of \$1,097,400 for final environmental clearance and design to complete the north-south bicycle way through Puerto Suello and investigation and final design to add sound-absorptive material on soundwalls in the Segment 4, 101 Gap Closure Project.

NOW, THEREFORE, the parties agree to modify agreement as set forth below.

AGREEMENT:

1. Except as otherwise provided herein all terms and conditions of the agreement shall remain in full force and effect.
2. Updated Certificate of Insurance(s) attached hereto.
3. Item 1. SCOPE OF SERVICES is hereby amended to read as follows: Add Contractor agrees to provide final engineering and bid packaging, environmental, and outreach services described in **Exhibit "A – Addendum 2"** attached hereto and by this reference made a part hereof.
4. Item 4. MAXIMUM COST TO TAM is hereby amended to read as follows: In no event will the cost to TAM for the services to be provided herein exceed the maximum sum of \$2,842,400.00 including direct non-salary expenses.

IN WITNESS WHEREOF, the parties hereto have executed this Second Addendum on the day first written above.

“TAM”

“CONTRACTOR”

TRANSPORTATION AUTHORITY MARIN

By: _____
Chair

By: _____
Thomas G. Kurkjian
Nolte Associates, Inc.

**TRANSPORTATION AUTHORITY OF MARIN
STANDARD SHORT FORM PERSONAL/PROFESSIONAL SERVICES
CONTRACT**

Exhibit A – Addendum 2
SCOPE OF SERVICES

Nolte Associates, Inc. (Contractor) provides consulting services to the Transportation Authority of Marin (TAM) for services described in Exhibit A to original contract, entered into on March 24, 2005. On October 27, 2005, Addendum 1 was approved for additional on-call services for the environmental clearance and preliminary engineering for the multi-use path to be incorporated into the Caltrans' construction documents for the Route 101 HOV Gap Closure Project, Segment 4 (Contract No. 04-226144). This addendum adds additional services as described herein and replaces Exhibit A – Addendum 1 in its entirety.

I. DESCRIPTION

The Transportation Authority of Marin (TAM) is planning the construction of a multi-use path for pedestrians and bicyclists in the City of San Rafael adjacent to Route 101 (southbound side). Final design for the Route 101 HOV Gap Closure Project, Segment 4, in the same location has been completed by Caltrans (Contract No. 04-226144). TAM has requested Nolte to prepare the necessary environmental clearance documents and design the pedestrian/bicycle trail and plans to incorporate the design into Caltrans' construction documents for the highway project, referred to herein as "project". To date, different trail alignments proposed by TAM and Nolte Team staff have been reviewed by TAM, Caltrans, City of San Rafael and other governing agencies, resulting in the current proposal as described herein.

The project consists of the design of an asphalt-paved, Class I trail with a 3.6 meter wide travel way and two 0.6 meter shoulders. Nolte will complete a design package consisting of an at-grade structure crossing over Linden Lane and an undercrossing of Lincoln Avenue. The remainder of the trail will be "at-grade," primarily east of the proposed Caltrans sound wall.

The scope of services for this project is to provide engineering and support services in order to complete Preliminary Design, Final Design and Construction Documents for the trail. A base set of assumptions are shown for Phase 1 through Phase 4 work below. The scope of services assumes that all design work will be complete by June 30, 2006.

The design will be prepared at one time. It is anticipated that some work will be incorporated into the Caltrans bid package, and that some work may be deferred either to a contract change order for Caltrans, and/or to a separate contract for work outside State Right of Way. This proposal does not accommodate split packaging of improvements.

II. DETAILED SCOPE OF SERVICES

PHASE 1 – PRELIMINARY DESIGN

Administration and Management (Scope Complete)

As part of Preliminary Design, Nolte will initiate the design project with the preparation of the Nolte Project Work Plan. This living document defines the conditions and criteria under which the design will be developed and products delivered to TAM. This document is updated on a continuous basis, and is reviewed with TAM at the beginning of each major phase of the project.

Nolte will organize and facilitate a kick-off meeting to include key TAM and Caltrans staff, and other agencies as identified by the team. Monthly progress reports will be provided in our contract invoice packet.

Nolte will prepare a detailed schedule for the entire design process using Microsoft Project. This schedule will be constantly monitored and updated as the project progresses.

Nolte will include data and records in project filing system.

Design and Deliverables (Scope Complete)

A preferred alignment for the trail and related project elements will be selected in this stage. The selection will be based on agency comments, ease of construction, synchronization with Caltrans' construction activity, public input, and the construction and project costs.

The type of bridges associated with the preferred alignment will subsequently be determined according to the geotechnical data, traffic activity of crossing streets, aesthetics, and construction and project cost. A plan set which consists of: 1. Path, including path alignment, associated profiles and cross sections; 2. Bridges, including general plans, foundation plans, abutment details, typical sections, girder layouts, and railing details; and 3. Retaining and sound walls, including plan and elevation sheets, foundation details, and wall typical sections will be submitted. Preliminary construction and project cost estimates will be updated and submitted as well.

Task 1.1 – Bike Trail Alignment Study (Additional Scope Part of Final Design)

Nolte continues to provide alignment alternatives to TAM and other governing agencies to address more detailed information on the latest alternatives to date. The preferred alternative for the path has been selected from these options, and order of magnitude construction cost estimates, profiles, geometric plan layout, cross sections, barrier options, and geotechnical implications have been identified at this time.

Additional efforts have been expended on this task in order to achieve the final alignment.

Task 1.2 – Sound Wall Proofing Study (Scope Complete)

Nolte will work with Caltrans to provide displays for use in public meetings depicting three sound wall system alternatives (masonry wall, masonry wall with sound deadening material, and pre-engineered sound wall system) from an approved Caltrans list of possibilities, to assist TAM and other governing agencies on determining if further noise reduction for the project sound walls is required. TAM and other governing agencies will select the preferred alternative for the sound wall system. Order of magnitude construction cost estimates per linear foot of wall will be provided for each sound wall system alternative in the study.

Task 1.3 – Storm Water Quality Issues (Scope Complete)

Caltrans has been given storm water quality areas of mitigation for Contract No. 04-226144. Nolte will review these areas and determine whether other areas within the project may be exchanged for these mitigations along with mitigations required by the regulations for this project. 72 man-hours are assumed for the investigation of alternate locations. The result of this task will be resolution of storm water issues. Implementation of the decisions reached is covered under Tasks 2 and 3 of this scope of services.

Task 1.4 – Linden Lane Structure (Scope Complete)

A bridge overpass structure is assumed for the bike trail at Linden Lane. Route 101 crosses Linden Lane via an existing bridge structure and a new structure is included in the Caltrans project plans (Contract No. 04-226144) for the realigned railroad tracks. Nolte will provide a bridge alternative analysis and Bridge Type Selection Report to TAM and Caltrans to determine the type of structure to be used at the Linden Lane overpass.

Task 1.5 – Lincoln Avenue / Highway 101 Ramp Overcrossing (Scope Complete)

A bridge overcrossing structure was proposed for the bike trail at the Lincoln Avenue / Highway 101 ramps. An undercrossing is now proposed.

Task 1.6 – Sound Wall Modifications (Scope Complete)

Existing sound wall modifications are necessary at the southern end of the bike trail and at the Linden Lane overcrossing to accommodate the trail. The reconstruction requirements of the sound wall in this area will be determined by Nolte. Preliminary wall modification details and an order of magnitude construction cost estimate will also be prepared and provided by Nolte to TAM.

Task 1.7 – Public Meetings Support (Additional Scope Part of Final Design)

Nolte bike path design team has attended and provided necessary exhibits and information to Circle Point and TAM, who attended the Public Outreach Meeting in December 2005 for the project. 40 man-hours for this task (excluding CirclePoint) were initially assumed for the bike path design team to support the meeting. However, additional efforts were expended for the meeting, including the preparation of the alternatives and the power point presentation along with making the presentation at the meeting.

Task 1.8 – Agency Coordination Permit Support (Scope Complete)

Nolte will coordinate technical aspects, needed approvals, permit updates, and processing requirements of agencies between the agencies and TAM. Specific permits for which the Nolte team will provide support in securing updated permits include RWQCB and COE. Nolte team members will attend meetings related to project issues, permitting issues and coordination efforts between all parties involved in the project, including TAM, Caltrans, City of San Rafael and other governing agencies. Nolte will prepare draft permit applications, including attachments, for agency submittal. It is anticipated that 100 man-hours for the bike path design team will be required for this task (excluding CirclePoint).

Agency/permit coordination includes the City of San Rafael, the County of Marin, SMART, Caltrans, RWQCB, ACOE and Fish and Game.

Caltrans Coordination - Nolte will obtain the electronic copy of the Caltrans' plans for Contract No. 04-226144. Modification to Caltrans' plans will be performed in Microstation by Nolte. New plan sheets will be produced in AutoCAD by Nolte for final Construction submittal. Translation to Microstation from AutoCAD is not included in this scope of services.

Task 1.9 – Geotechnical Engineering Services (by Parikh) (Additional Scope Part of Final Design)

This task will include review of existing geotechnical and structure foundation reports and analysis already performed for the project. As necessary for new structure, additional borings will be documented. Modifications to the existing geotechnical reports will be prepared in the form of addendums to be placed in the appendices, and a new foundation report will be prepared for the Undercrossing proposed at Lincoln. It is assumed the borings utilized for the bridge design for the new/widened structures over Linden will be satisfactory for the design of the ped/bike bridge over Linden.

Additional scope includes the completion of reports and analysis for the tunnel alternatives. The initial scope and fee for preliminary design assumed the completion of documents to a 35% level.

Task 1.10 – Additional Topographic Survey (Additional Scope Part of Final Design)

This task initially included up to 40 hours of field survey to gather additional information needed for the bike path. A comparable amount of time was required for in-house efforts to create new base maps incorporating the new field information.

Additional final design elements arose from preliminary design, and more field survey will be required for these new elements (at Coleman School Pedestrian Overcrossing, at Linden Lane and at box culvert requiring extension). This added task assumes 3 days of field survey and the same amount of time for in-house efforts to incorporate the field information into the base maps.

Task 1.11 – Landscape Coordination and Planning (Scope Complete)

It was initially assumed that Caltrans would prepare landscape plans in the project area, and now the landscape plans will be done by Nolte's team. Nolte will coordinate with Caltrans to facilitate landscape designs consistent with the bike trail usage. Nolte will further coordinate and support development of exhibits for use in public meetings. This task will include preparation of master planning level documents for the entire reach of trail (Los Ranchitos to Stevens Place). This effort does not include preparation of final design or construction documents, but does include identification of irrigation crossovers, which will be incorporated into the contract documents.

It is assumed that no additional right-of-way acquisitions will be required. Extensive coordination with Caltrans staff will be required on issues relating to design layout, construction staging, traffic impacts, encroachment permits, and protection of trail users adjacent to the highway facilities.

It is assumed that field visits/site investigations will occur for the verification of existing surface information, project understanding and picture taking within project limits. The budget for field visits will be included within the above tasks.

PHASE 2 – FINAL DESIGN

The results of the preliminary design phase described in Phase 1 will be further developed to provide PS&E elements on an on-going basis for review and approval by TAM and Caltrans up to a 95% completion level.

Throughout the review process, a response to comments matrix will be prepared and updated by Nolte to document comments and resolutions. Quick resolution of outstanding or conflicting issues is required to allow the design team to have the proper direction and time to address the design issues. As necessary, issue resolution meetings will be scheduled.

Upon approval of the path alignment, type of bridges, and sound wall issues, Nolte will proceed with the final design. The design, detailing, and drawing presentations will conform to Caltrans standards, policies, and guidelines for work within State Right of Way and City Requirements for work within City Right of Way.

A Geotechnical Foundation Report will be required for each structure for the final design phase. The geotechnical reports will include general geotechnical information, retaining wall design information, foundation recommendations, foundation design information, and site specific or Caltrans SDC spectra curves required for seismic design. See Task 1.9 for details on these services.

Plans, specifications, estimates, and calculations in accordance with the Caltrans' guidelines and requirements will be submitted. A comprehensive quality control review of the submittal will be performed by senior staff. An independent bridge design check on the final bridge plans will be conducted by Nolte as well using engineers who were not involved in the design of the project.

Task 2.1 – Meetings (PDT, Design) (Additional Scope Included)

In order to facilitate the review process, bi-weekly bike path design coordination meetings with TAM and Caltrans staff will be scheduled. Nolte will utilize monthly Project Development Team (PDT) meetings (to be combined with bi-weekly review) to track overall progress of the project and facilitate the flow of information between the Agencies and Nolte.

During Preliminary Design, coordination efforts exceeded the original budgeted amount to attend meetings. Nolte attended other meetings regarding the project, including the Local Partners Group meetings, TAM Board meetings and the City of San Rafael requested meetings. It is expected that the same efforts for these meetings will be required through final design.

The Nolte bike path design team will also attend two community outreach meetings in support of the project.

- PDT meetings. (Assumes an 8-month schedule – 14 meetings total)
- Bi-weekly design coordination meetings (16 meetings total)
- Coordination meetings with City, Local Partners Group, Interest Groups & Other Agencies (16 meetings total)

Task 2.2 – Longitudinal Encroachment Permit

Nolte will work with Caltrans and TAM in the preparation and submittal of an application for longitudinal encroachment of Route 101 highway facility, if a permit is required in order to construct the trail segment along that part of the trail within the Caltrans right-of-way.

Task 2.3 – Amend Project Report

It is assumed an amendment of the original Project Report is necessary as part of this project. Nolte will review the original report and add any necessary information to include the trail in the report. Nolte will submit the amended project report to TAM and Caltrans for review. One iteration of comments and incorporation of the amended report is anticipated.

Task 2.4 – Public Meetings Support (Additional Scope Included)

Nolte will provide necessary exhibits and information to Circle Point and TAM, who will be attending one Public Outreach Meeting for the final design of the project. Initially, 24 man-hours for the bike path design team (excluding CirclePoint) were assumed for this task. Additional efforts are anticipated for a meeting on the aesthetics of the sound walls and structures and are based on the efforts for the December 2005 public meeting. A total of 80 man-hours are assumed for this task.

Task 2.5 – Design Exceptions

Through design development, it is common that issues will arise with the proposed plans and profiles for the project whereby all Caltrans design requirements cannot be met. It is

anticipated that Exceptions to Caltrans Design Standards will be required. Nolte will prepare Caltrans format Fact Sheets to document these design exceptions and submit for approval to Caltrans. A meeting with Caltrans to review the Fact Sheet is included. 80 man-hours for the bike path design team are assumed for this task.

Task 2.6 – Utility Coordination

Nolte will coordinate with utility owners to establish a relocation plan to accommodate the path construction. At this time, it is believed that no underground utility lines require relocation. It is assumed that the relocation of existing overhead facilities impacted by the construction on City streets will be completed by the utility owners and that these relocations will not affect the Caltrans project.

It is also assumed that all existing utilities within the corridor are shown on the base map, and no additional investigation will be required.

Task 2.7 – Bike Path Design

Nolte will revise all civil plans necessary in Contract No. 04-226144 to reflect the design of the proposed path. Drafting revisions are to be done by Nolte staff on Caltrans' plans. Where new plans are necessary, Nolte will create and draft the sheet.

Task 2.8 – Drainage / Storm Water Design

Nolte will revise proposed drainage plans in Contract No. 04-226144 to reflect the design of the proposed path. The drainage modifications will rely on original drainage design assumptions and original design decisions. It is assumed that Nolte will receive access to the complete Caltrans Drainage Design Report, and an addendum to the report will be prepared, identifying all changes and providing supporting calculations equivalent to the level of effort of the original Drainage Design Report.

For storm water design, it is anticipated that three areas of effort may be required: 1) modification to the Caltrans' bioswales currently located between the highway and the railroad tracks, 2) modification to the three US Army Corps of Engineers (COE) mitigation areas located west of the railroad tracks and 3) design of new treatment facilities to replace the loss of bioswales due to the path.

Drafting/AutoCAD revisions are to be done by Nolte staff. It is anticipated that areas within the freeway right-of-way will continue to drain to systems within State right-of-way. Where new plans are necessary, Nolte will create and draft the sheet.

Task 2.9 – Specifications (Additional Scope Included)

Nolte will modify the Special Provisions prepared for Contract No. 04-226144 to reflect construction of the multi-use path. Nolte will use the most current version available from Caltrans of the Standard Special Provisions and will revise the Standard Special Provisions to meet the requirements of this specific project, including addition of standard City specifications into the Caltrans format as required.

Additional efforts will be required due to new design elements arising from the preliminary design phase.

Task 2.10 – Estimates (Additional Scope Included)

Nolte will prepare an estimate of probable construction costs for the Project. This estimate will be based upon a quantity estimate prepared by the design engineer and unit cost information for each of the materials. The unit cost data will be based on the BEES estimate prepared by Caltrans for the highway widening project, experience with recent bid openings on similar projects and the Contract Cost Data book as prepared by Caltrans.

Additional efforts will be required due to new design elements arising from the preliminary design phase.

Task 2.11 – Los Ranchitos Realignment

Nolte will re-align Los Ranchitos Road as part of this project. Nolte will revise civil plans necessary in Contract No. 04-226144 to reflect the redesign of the existing road. Nolte will coordinate this design with Caltrans and the City, designing improvements to appropriate standards.

Task 2.12 – Structural Design of Linden Lane Overcrossing

Structural Plans and calculations will be developed for the Linden Lane Overcrossing in accordance with the Caltrans' guidelines, requirements, and procedures and will be submitted for review and comment.

Task 2.12A – Linden Lane Overcrossing Independent Check

An independent check will be conducted on the structural plans, special provisions, calculations, and quantity estimates for the Linden Lane Overcrossing in accordance with the Caltrans' guidelines and procedures.

Task 2.13 – Structural Design of Lincoln Avenue Undercrossing (Revised Scope)

Structural plans and calculations will be developed for the Lincoln Avenue Undercrossing in accordance with the Caltrans' guidelines, requirements, and procedures and will be submitted for review and comment.

Task 2.13A – Lincoln Avenue Undercrossing Independent Check (Revised Scope)

An independent check will be conducted on the structural plans, special provisions, calculations, and quantity estimates for the Lincoln Avenue Undercrossing in accordance with the Caltrans' guidelines and procedures.

Task 2.14 – Structural Design of Sound Wall Modifications (From Coleman School Pedestrian Overcrossing Southerly)

Structural Plans and calculations will be developed for the anticipated sound wall modifications in accordance with the Caltrans' guidelines, requirements, and procedures and will be submitted for review and comment.

Task 2.14A – Sound Wall Modifications Independent Check (From Coleman School Pedestrian Overcrossing Southerly)

An independent check will be conducted on the structural plans, special provisions, calculations, and quantity estimates for the anticipated sound wall modifications in accordance with the Caltrans' guidelines and procedures.

Task 2.15 – Traffic Engineering Services (by Fehr and Peers) (Revised Scope)

The existing signal at Lincoln/101 ramps may be affected by the proposed undercrossing. This task will include modifications to the existing signal at this location during the construction of the undercrossing and preparation of a Traffic Control Plan. This task also includes evaluation of a proposed bicycle crossing along Los Ranchitos Road near Fair Drive at the north end of the project limits and the evaluation of the safest way to connect the trail to the Linden sidewalk and at Mission Avenue.

Lighting design is also required for the trail, at the Linden Bridge and at the Lincoln Undercrossing, and this task includes these efforts.

Task 2.16 – Architectural Design (by Amphion) (Revised Scope)

This task will include efforts to design aesthetic treatment of the new sound walls west of Highway 101 and at the existing east sound wall, as well as provide input for the trail features (any railing, barriers, walls). Architectural input and design development will also be provided for the two new structures at Linden and Lincoln, including aesthetic treatment at the intersection of the Linden elevated sidewalk and the "breakaway" path (access from main trail) as well as at Mission Avenue.

Task 2.17 – Not Used

Task 2.18 – Landscaping Design (New Scope)

Not in scope, will be included by with overall landscape project ~~As a new design element from Preliminary Design, this task will include landscaping design along the trail, with emphasis at Stevens Place, at the Lincoln undercrossing and at Los Ranchitos. Landscaping will be limited to shrubs and minor elements adjacent to the freeway except where there is adequate room.~~

Task 2.19 – Access at Linden Lane – “Breakaway” Path and Retaining Wall (New Scope)

Based on Preliminary Design efforts, a “breakaway” path from the main trail has been added to the final design in order to create access at the Linden Lane elevated sidewalk. This task will include the design of the access path along with a retaining wall design which separates the main trail from this path. Calculations and details will be provided.

Task 2.20 – Linden Lane Stairs with Bridge (New Scope)

This task arose from Preliminary Design efforts and will include the structural design of a staircase adjacent to the proposed railroad abutment wing wall and the structural design of a minor bridge over the “breakaway” path and from the stairs leading to the main trail north of the proposed Linden Lane Overcrossing. Calculations and details will be provided.

Task 2.21 – Linden Lane Redesign of SMART Abutment Wing Wall (New Scope)

Based on Task 2.20 above, this task will include the redesign of the abutment wing wall as the initial design assumed soil would be in front of the wall. Since a staircase and “breakaway path are necessary at this location, the redesign of the wing wall is necessary. It is also anticipated that an extension of the wing wall or a new retaining wall will be required at this site. Calculations and details will be provided.

Task 2.22 – Box Culvert Extension south of Paloma Avenue (New Scope)

As a new design element from Preliminary Design, this task will include the design of a box culvert extension located south of Paloma Avenue. The box culvert is currently under Highway 101 and terminates west of the existing sound wall where the proposed path will be located. Details and calculations will be developed and provided.

Task 2.23 – Sound Absorptive Wall Design – West Wall (New Scope)

This task arose from Preliminary Design efforts and will include the structural design of a sound absorptive wall on top of a retaining wall or concrete barrier along the west side of the Highway 101 widening project. This task will also require the modification of 18 sheets of the Caltrans’ plans and the creation of 30 new plans and details for the absorptive wall. Plan, elevation, typical sections and details will be developed and submitted as part of this task. The limits for this wall will be from near the Coleman Pedestrian overcrossing to Lincoln Avenue on-ramp.

Task 2.24 – Sound Absorptive Wall Design – East Wall (New Scope)

This task arose from Preliminary Design efforts and will include the structural design of a sound absorptive wall to be placed in front of the existing masonry sound wall located on the east side of Highway 101. The limits of this wall will be from near the Coleman Pedestrian overcrossing to the Lincoln Avenue on-ramp, approximately 1700 meters in length, which is equivalent to the existing sound wall. This task will require the creation of 15 new sheets of

plans and details for the absorptive wall. Plan, elevation, typical sections and details will be developed and submitted as part of this task.

Task 2.25 – Caltrans Permit Fees (New Scope)

Based on conversations with Caltrans' representatives, encroachment permit fees will be required as part of this project and will not be exempt. The fee assumes permits for survey and geotechnical encroachment during the design process.

Nolte will provide services to include the drafting of the existing Caltrans' plans to show the project modifications. Microstation plans will be edited in Microstation. It is assumed that 126 sheets will be modified from Caltrans' plans for Contract No. 04-226144. It is also assumed that once the drafting is complete, Nolte will give the electronic files back to Caltrans in Microstation format, and Caltrans will then sign the modified plans once they have been approved

It is envisioned the following sheets will be required for this project. The number of sheets will remain the same for all submittals, unless adjustments are necessary.

PLAN SHEETS	NO. OF MODIFIED SHEETS (04-226144)	NO. OF NEW SHEETS	65%, 95%, 100% (ASSUMED)
Typical Cross Sections	4	2	6
Layout (1 :500 Metric)	7		7
Profiles	1	6	7
Construction Details (General)	5	11	16
Erosion Control Plans and Details	5	2	7
Drainage Plans	7	7	14
Drainage Profiles	10	5	15
Drainage Details	3	2	5
Drainage Quantities	20	4	24
Utility Plans	7		7
Stage Construction Plans	10	4	14
Pavement Delineation	7	7	14
Pavement Delineation Quantities	7	1	8
Summary of Quantities	5	1	6
Sign Plans	5	5	10
Retaining Wall Plans	3	7	10
Structure Plans		32	32
Sound Wall Plans	20	47	67
Landscaping Plans		16	16
Architectural Plans		10	10
Lighting Plans		10	10
Traffic Signal Plans		2	2
TOTAL SHEETS	126	181	307

Due to the time constraints for the project, an approval of the project documents (PS&E) will not follow standard Caltrans process. Approvals will be done by continuous coordination with Caltrans and City staff and review meetings.

The result of the 95% level phase will be a set of “ready for construction” design documents. These documents will be submitted to TAM, City and Caltrans. Nolte will perform the following activities within the 95% level phase:

- Incorporate review comments from the review sessions.
- Update and submit the design plan sheets.

- Update and submit the special provisions.
- Update and submit the construction quantities and cost estimates.
- Perform in-house quality control review.
- Provide AutoCAD and “.PDF” electronic copies of plans along with Microsoft Word and “.PDF” electronic copies of the specifications.

PHASE 3 – CONSTRUCTION DOCUMENTS

Finalization of 100% plans, specifications and estimates follow the Final Design Phase and form the basis of permit applications. Nolte’s focus, at this stage of design, is on final details. Commonly, this effort deals mostly with construction details, conforms, quantities, and cross references within the plans, the Bid List and Specifications.

Task 3.1 - Civil Plans

This task incorporates comments from the 95% phase, and produces the final civil plans, ready for bidding. Nolte’s activities will include the following:

- Final Civil Plans.
- Electronic submittal of new CAD files (in AutoCAD format).

Task 3.2 - Civil Specifications

This task incorporates comments from the 95% phase, if any, and produces the final specifications documents, ready for bidding.

Task 3.3 – Civil Estimate

This task incorporates comments from the 95% phase, if any, and produces the final cost estimate and bid list, ready for bidding.

Task 3.4 – Permit Coordination

Nolte will coordinate permits required for construction, including the COE, California Regional Water Quality Control Board, Caltrans Longitudinal Encroachment Permit, and agreements with SMART. This work will include preparing draft permit applications for agencies to submit.

Task 3.5 – Structural Plans

This task incorporates comments from the 95% phase, if any, and produces the final structural PS&E documents, ready for bidding.

Task 3.6 – Resident Engineer File

Nolte will provide the following bike path data to be included in the Resident Engineer File prepared by Caltrans:

- Scaled drawings of bridge deck contours
- Geotechnical Reports
- Catalog cuts of any prefabricated systems
- Design Exceptions

PHASE 4 – ENVIRONMENTAL CLEARANCE

The Nolte team will provide the environmental clearance for the project. The work will be performed by Nolte's subconsultant, CirclePoint.

Task 4.1 – CEQA/NEPA Documentation and Support

This task will involve supporting Caltrans in preparation of an Addendum/Re-evaluation to the *Marin 101 HOV Lane Gap Closure Project, Final EIS/R, December 1999*. The Addendum/Re-evaluation will describe the proposed changes to the project which include the following:

- Addition of a bike path within the State ROW along the southbound travel way from approximately Paloma Avenue to the Lincoln Avenue Interchange
- Modification of a small segment of existing sound wall along the southbound travel way and at Linden Lane.

The addendum/Re-evaluation will describe the environmental effects associated with construction and operation of the bike path and changes to the noise analysis caused by modification to the sound wall. It is anticipated that the Addendum/Re-evaluation will focus on the following topic areas:

- Noise issues associated with modifying a portion of the sound wall and construction of the path
- Biological issues primarily related to identifying alternate sites or options for wetland mitigation areas proposed within the project limits.
- Visual and privacy issues associated with the bike path (including two (2) visual simulations of the bike path and/or sound wall modifications)

An administrative version of the Addendum/Re-evaluation will be prepared and provided to Caltrans for review. The document will be revised in response to Caltrans comments and resubmitted for final review and approval by Caltrans and FHWA.

Assumptions:

1. *No new technical studies or reports are necessary beyond what is specifically identified below.*
2. *Up to 4 meetings with Caltrans/TAM/Nolte staff to discuss the necessary environmental documentation*
3. *No more than two (2) visual simulations of the bike path*

4. *3 rounds of review by Caltrans and FHWA*

Task 4.2 – Noise Analysis and Support – Soundwall Modifications

Noise Assessment for Modifying “Cut Through” Portion of Existing Sound Wall

This task will involve review of sound wall modifications required by the trail at spot locations south of Linden. Initial efforts will determine if noise modeling of the modified portion of sound wall south of Linden Lane will require modeling. If required, the noise model will be used to predict the future noise levels in the surrounding areas. The predicted noise levels will then be compared to the noise levels predicted in the Final EIS/R as well as Caltrans Noise Abatement criteria. If the results of the noise modeling indicate the wall may be less effective, the noise specialist will provide recommendations for improving the noise attenuation of the wall such as extending a portion in the Cut Through areas, or moving it to an alternate location(s). The results of the noise analysis will be documented in a technical memorandum which will be appended to the environmental document described in Task 1.

Assumptions:

1. *Noise modeling will be limited to the areas south of Linden Lane*
2. *Maximum of four (4) measurements of existing noise levels will be conducted*
3. *Caltrans or Nolte will provide copies of the previous Noise Report and Modeling results.*
4. *One round of review by Caltrans*

Task 4.3 – Biology Studies and Support (Revised Scope)

The proposed changes to the project will affect an existing box culvert and creek located within the State ROW south of Paloma Avenue and west of the existing sound wall. This task will involve consulting with the COE regarding the extension of the box culvert and other biological studies within the project limits.

Assumptions:

1. *Caltrans will be responsible for submitting applications and other materials directly to the Corps*
2. *No wetland surveys or other biological investigations are necessary*

Task 4.4 – Public Involvement Activities

This task will include:

- Preparation of one fact sheet regarding the Bike Path
- Coordination, facilitation and documentation of one public workshop or meeting regarding the bike path

III. ASSUMPTIONS / EXCLUSIONS

- Design of pedestrian/bicycle trail must be complete by June, 2006 in order to meet the basis and assumptions of this scope of services.
- Bid Support is excluded from the scope of services.
- Construction Support is excluded from the scope of services.
- It is assumed that no major electrical design modifications for the project will be required. Minor modifications will be performed by the Nolte team.
- Landscaping design (final) is excluded from this scope of services.
- Potholing for utilities is not anticipated at this time and is not included. This scope assumes coordination of utility relocations only and does not include design. Should Nolte perform the design for relocations not specifically listed in Task 2, said design would be considered additional services.
- It is assumed that the final design phase will be built on previously collected information available through Caltrans Contract No. 04-226144, with only supplemental field data collection required.
- It is assumed that Caltrans information available through Contract No. 04-226144 will be used as the base for this project, and no additional utility research will be required.
- It is assumed that all investigation work associated with aerially deposited lead (ADL) has been completed by Caltrans as part of Contract No. 04-226144 work, and no additional investigation will be required.
- The design will be conducted assuming there is no hazardous waste contained on the project site.
- Translation of plans from AutoCAD format to Microstation will not be done as part of this scope. It is assumed that Caltrans will translate the electronic AutoCAD files to Microstation format. Nolte can perform the translation as additional services, if requested.

IV. SCHEDULE

The following milestone schedule is based on design development of the project only. Permits, environmental documents and other document approvals (such as PSR/PR) will be pursued in parallel and will require resolution prior to beginning construction. A detailed CPM schedule will be prepared as part of Task 1 to reflect the specific tasks associated with each milestone, including anticipated review times from agencies.

Milestones:

- NTP – October 27, 2005

- Structure Type Selection – February 2006
- 95% Level - April 2006
- Bid Ready Package – June 2006
- Begin Construction with Mainline Project – January 15, 2007
- Complete Construction – December, 2008